Work

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ALAMY

Burnout is a syndrome that can occur in any workplace where there is long-term stress — including academic science.

PANDEMIC BURNOUT IS RAMPANT IN ACADEMIA

Remote working, research delays and childcare are taking their toll on staff, causing stress and anxiety. **By Virginia Gewin**

A year into the coronavirus pandemic, many in the academic scientific workforce are experiencing a state of chronic exhaustion known as burnout. Although it is not a medical condition and can occur in any workplace where there is stress, burnout is recognized by the World Health Organization as a syndrome. Its symptoms are physical and emotional, and include feelings of energy depletion or exhaustion; increased mental distance from and feelings of negativity or cynicism towards one's job; and a reduced ability to do one's work.

At its core, burnout is caused by work that demands continuous, long-term physical, cognitive or emotional effort.

Indicators of the syndrome have risen sharply in some higher-education institutions over the past year, according to surveys in the United States and Europe. In a poll of 1,122 US faculty members that focused on the effects of the pandemic, almost 70% of respondents said they felt stressed in 2020, more than double the number in 2019 (32%). The survey, conducted last October by *The Chronicle of Higher Education* and financial-services firm Fidelity Investments in Boston, Massachusetts, also found that more than two-thirds of respondents felt fatigued, compared with less than one-third in 2019. During 2020, 35% felt angry, whereas just 12% said that in 2019. The results were released last month.

More than half of people surveyed said they were seriously considering changing their career or retiring early. Emotional and other effects of pandemic-related burnout

were worse for female faculty members: 75% of women reported feeling stressed, compared with 59% of men. By contrast, in 2019, that number was 34% for female respondents. Around eight out of ten women also indicated that their workload had increased as a result of the pandemic, compared with seven out of ten men. Almost three-quarters of female faculty members reported that their work–life balance deteriorated in 2020, compared with just less than two-thirds of male respondents.

A similar survey in Europe offers an equally grim snapshot, showing a drastic increase in the rates of stress and mental-health concerns in the academic scientific workforce. Ominously, the pandemic's toll now also includes rampant career uncertainty.

As universities struggle with the economic fallout of repeated closures, burnout among academic researchers will probably continue for some time amid lay-offs or hiring freezes, say higher-education researchers. There are no quick or easy solutions to burnout, especially with no end in sight to its underlying structural causes; academic scientists are often largely left to muddle through as best they can (see 'Managing burnout').

Mid-career minefield

A European poll of academic journal and book authors by De Gruyter, a scholarly publishing house in Berlin, found that mid-career researchers, particularly women, have been hit the hardest by work-related stress. According to its December 2020 report, *Locked Down, Burned Out*: "For many academics the pandemic has [been], and continues to be, a time of great stress, insecurity and pressure."

Researchers have got busier as the pandemic continues, says Deirdre Watchorn, senior manager of De Gruyter's insights and analysis team. The publisher conducted two surveys: one last May, involving 3,214 respondents from 103 countries, and another last October, in which 1,100 people responded from 78 countries. "One of the biggest shifts was how many hours people were working day to day," says Watchorn: most people's hours increased, largely caused by the global transition to digital learning. The need for academics to conduct teaching online can roughly triple the preparation time for a one-hour lecture, says Liz Morrish, who researches higher-education policy as a visiting fellow at York St John University in York, UK. That leaves less time for research.

In addition to online teaching demands, Watchorn says, survey respondents identified two other impediments to conducting academic research as normal: disrupted professional networks and working from home, often while caring for children. Academic researchers feel that their careers are on hold, and long-term collaborations are suffering as a result of the network disruptions and the inability to work together in person. "We saw the reported usage of Twitter increase as a result of the pandemic, and people trying to find collaborators," Watchorn says.

Pile-up effect

Thomas Kannampallil, who studies clinical decision-making at the Washington University School of Medicine in St Louis, Missouri, conducted three surveys of physician trainees in mid-2020 to determine whether burnout was exacerbated by their exposure to people who had been hospitalized with COVID-19. In the first survey, involving 393 trainees working in two US hospitals in April last year, he and his colleagues found that those who were involved in front-line medical responses to the pandemic experienced more stress and burnout than did those not caring for people with COVID-19 (T. Kannampallil *et al*. *PLoS ONE* **15**, e0237301; 2020).

Kannampallil says that greater job-related stressors affect one's ability to dissociate from work, resulting in a lower likelihood of engaging in activities such as exercise, sleep and self-care that help with recovery. The heavier workload, along with less ability to recover, produces a vicious cycle, Kannampallil says. "You are emotionally exhausted yet disconnected, which creates an inability to recover and leads to a 'pile-up effect'," he says.

An inherent problem

Even before the pandemic, many researchers in academia were struggling with poor mental health. Desiree Dickerson, an academic mental-health consultant in Valencia, Spain, says that burnout is a problem inherent in the academic system: because of how narrowly it defines excellence, and how it categorizes and

Managing burnout

Academic researchers who are experiencing symptoms of burnout in connection with the pandemic can take some steps to help themselves feel better. Here are suggestions for mitigating distress.

Don't internalize burnout as failure.
Burnout is a consequence of a system that expects people to work long hours and sacrifice their personal lives. That same system often sends the message that a 40-hour working week is not enough, says clinical psychologist Desiree Dickerson, who works as an academic mental-health consultant in Valencia, Spain. Too often, Dickerson says, academics internalize burnout as failure. "That's inaccurate and harmful," she says. In addition to focusing on the pillars of mental health — sleep, good nutrition, exercise, socializing in a safe way — Dickerson encourages academics to find a forum through which they can express the grief, loss, uncertainty, worry and fear that so many are feeling. "[Academia] is an ultra marathon, not a sprint. You have to pace yourself," she says.

Create ways to detach from stress.
The key to effective recovery periods is doing activities that give you a sense of detachment — reading fiction, cooking or going for a run, says Rajvinder Samra, senior lecturer in health at the Open University in Milton Keynes, UK. "If you are using social media to talk to friends or family and it brings up stressful things, that isn't detachment," she notes.

Prioritize and normalize conversations about mental health.
The pandemic has made conversations around mental health the norm. "Maintaining our mental health and engaging in self-care should be a priority in a way that we haven't fully recognized in the past," says Lisa Jaremka, director of the Close Relationships and Health Lab at the University of Delaware in Newark. "Two or three times a semester, I talk to students about taking time off, and encourage them to do so," she says. "I've openly shared that I've been to a therapist many times in my life, and how to utilize mental-health resources if they need to."

Fight the isolation.
Bioinformatician Emma Bell — who identifies as a person from a gender minority, a person of colour, queer, an immigrant and a first-generation academic — has been grappling with pandemic-related burnout during their postdoc at the Princess Margaret Cancer Centre in Toronto, Canada. When the pandemic took hold in Canada in March 2020, Bell had lived in Toronto for just a year, and had lost important sources of support, including a bioinformatics club for women and members of marginalized gender identities that faltered in a digital setting. Bell set up a weekly meeting with another postdoc in the group to provide structure and peer support, and to lift moods. But Bell says that they tackled stress and uncertainty best by getting a new puppy. "I've made a point of having animals in my apartment to fight isolation," Bell says. "We need to be kind to ourselves right now."

VICENT BOTELLA SOLER

Mental-health consultant Desiree Dickerson says that burnout is inherent in the academic system.

rewards success. "We need to reward and value the right things," she says.

Lisa Jaremka, director of the Close Relationships and Health Lab at the University of Delaware in Newark, says that pressures leading to burnout are institutional and that academic structures must change. Those in power, including university administrators, members of hiring committees and department chairs, need to change expectations and set new ones, Jaremka says.

Yet evidence of empathetic leadership at the institutional level is in short supply, says Richard Watermeyer, a higher-education researcher at the University of Bristol, UK, who has been conducting surveys to monitor impacts of the pandemic on academia. Performative advice from employers to look after oneself or to leave one day a week free of meetings to catch up on work is pretty superficial, he says. Such counsel does not reduce work allocation, he points out.

The pandemic has exacerbated the existing inequalities in academia, says Mangala Srinivas, a clinical-imaging scientist who is outgoing chair of the Young Academy of Europe, an advocacy and networking group of leading young scientists and scholars. Dickerson expects a disproportionate increase in burnout in academic researchers from marginalized groups — among them, women, international students, carers and people from sexual and gender minorities (LGBT+) — alongside the increases in anxiety and depression already seen in those scientists. Rajvinder Samra, a senior lecturer in health at the Open University in Milton Keynes, UK, recommends that members of marginalized groups forge connections with those who might have similar vulnerabilities. This might help individuals to create a sense of belonging and to build confidence when raising concerns with people in senior positions.

> **"You are emotionally exhausted yet disconnected, which creates an inability to recover."**

And although many funders have granted extensions to help ease deadline pressures, often there is no extra money, Srinivas adds. On the upside, however, the pandemic has brought a greater institutional acceptance of flexible working hours and provided more opportunities to write or spend time with family, she says.

Morrish is not optimistic that workloads will ease any time soon. "Every university will be under financial stringency, which means fewer faculty members and more workload," she says. Redundancies have been under way since last year in many institutions, including a reported 17,000 job cuts in Australia, alongside lay-offs in the United States, Canada and the United Kingdom.

For academic researchers who have the benefit of union representation in their institutions, Morrish recommends joining a union and participating in meetings. For other scientists, she says, it is important to review contracts. "Be vigilant, know your contract, and make sure the institution doesn't ride roughshod over you." Samra advises that academic scientists update their CVs with new skill sets they've had to learn as a consequence of pandemic-related changes. "Acknowledge and get credit for the skills you are developing," she says — it could lead to enhanced job prospects in the future.

Watermeyer thinks that early-career researchers, in particular, need to make clear decisions now about their future career prospects in academia. "Precarity", he warns, "is bound to increase."

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